

Feeling Bad: Exploring Sources of Distress Among Pre-Adolescent Children

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Abstract: Previous studies of stress in childhood have used instruments containing items describing events/conditions thought by *adults* to be stressful for children. In interviews with 5th- and 6th-grade children, we asked them to describe circumstances that would make or had made them feel bad, nervous, or worried. After pretesting this children's list of items, we administered it to 2,480 5th graders. Subjects ranked how bad they would/did feel if each item happened and, also, how often each had occurred. Children also self-rated their mental health status. There were significant associations between children's ratings of mental health and "Feel Bad" scores. Girls rated most items significantly higher (more bad) than

boys. While there were some sex and racial differences in ratings, the rank orders of items by different subgroups were highly correlated. Factor analysis revealed three dimensions, containing items related to: 1) anxieties surrounding conflict with parents; 2) self-image and peer-group relationships; and 3) geographic mobility. Only five or six of the 20 items represent discrete events (changing schools); the rest represent chronic role strains (being left out of a group, being pressured to get good grades). The consequences of these strains are yet to be determined. (*Am J Public Health* 1984; 74:117-122.)

Introduction

A variety of studies have indicated that in defined populations of adults, such as members of health maintenance organizations, a small proportion of persons account for the majority of all visits to physicians.^{1,2} While some of these individuals have chronic medical problems, the majority have no diagnosable disease. A positive relationship between psychological distress and the use of health services among these "worried well" adults has been well documented.³⁻⁵

For the past 12 years, we have been examining the origins of adult illness behaviors. These studies have involved creating "adult-free" systems in elementary schools where children are able to initiate their own visits to school nurses. Under these circumstances, we have found patterns of utilization among children 6-12 years of age quite similar to those of adults.⁶ Others have described the same phenomena under more traditional circumstances.⁷ Rogers has shown that high utilizers have a higher probability of unsatisfactory performance in school,⁸ more often adopt risk-taking behavior such as cigarette smoking⁹ and use of drugs, and have a higher tendency to drop out of secondary school.

The high utilizers observed in our studies were not children with chronic medical problems. Most of the visits made by children who were high utilizers have been perceived by nurses and teachers to be related to social and emotional problems. In support of this perception, we found that the introduction of psychological counseling services was accompanied by a 60 per cent reduction in the number of visits to the nurse made by high users.* While the indirect evidence suggests that children who visit the nurse frequently are psychologically distressed, the nature of this distress, as well as its source, has not been examined in a systematic

fashion. Only a handful of studies have examined stress in childhood.¹⁰⁻¹⁴ All of these have used instruments containing items perceived by adults as probably stressful for children. In fact, "stress" has never been operationally defined from the child's perspective.

In this study, we report preliminary data concerning children's self-reported sources of distress. We have chosen to label our list of items "Feel Bad - I" to reflect the terms used in working with children, our primary interest in factors affecting children's general well-being, and its preliminary nature.

Methods

A pool of items was developed through individual interviews and small group sessions with 50 to 60 5th and 6th graders. Our approach was to let the children generate the items; thus, we did not begin with a preconceived set of life events, psychological stressors, or persistent role problems. Children were asked "What happens that makes you feel bad, nervous or worry?" We used all three terms to describe negative psychological states, because we were concerned with sources of distress, rather than their differentiation among the feeling states. While other items were generated, only those generally agreed upon by the group were included. Despite the fact that no further clarification was given or requested, only one item was generated that concerned physical discomfort—feeling sick. An initial list of 22 items was developed from these interactions with children, most of whom were from middle-class, White families. These items were subsequently administered by questionnaire to a second group of 30 6th graders of similar ethnic and socioeconomic background. Data were collected on the perceived magnitude of the problems, in terms of how bad it would make children feel (from not bad to terrible), as well as its frequency of occurrence (never to all the time). Intensity and frequency were each rated on 5-point scales.

Preliminary analyses indicated that two items were almost always rated "not bad," even though they occurred with varying frequency in this population. Therefore, these items were eliminated. The resultant list of 20 items was then administered to over 2,400 5th graders who were participants in a national controlled trial of a decision-making curriculum. This trial involved a sample of communities selected for their diversity in terms of geographic location, size of

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community, and socioeconomic background of families. As such it is not a representative random sample of all communities. Among the sites were Gary, Indiana, Ventura, California, and Schaumburg, Illinois, and several small communities in Maine, Arizona, and Montana.

The 5th graders were presented with two lists of the same 20 items. On the first page, the instructions read, "The following is a list of things that some kids say make them feel bad, or nervous or make them worry. For each, put an X showing how you would feel *if this happened to you* or, if this happened to you, how you felt." The children placed an X in one of five categories labeled: not bad (scored as 1), a little bad, pretty bad, real bad, and terrible (scored as 5). For the second list, the instructions read, "Now please indicate if any of these things has happened to you in the past year, and if so, how often." The children placed an X in one of five categories labeled: never (scored as 1), one or two times, sometimes, often, and all the time (scored as 5).

These lists were on the fourth and final page of a questionnaire obtaining information related to decision-making practices and content of the curriculum *Actions for Health*.¹⁵ It was administered by classroom teachers. Over 95 per cent of those attending classes responded.

Results

The sex and racial/ethnic group distributions of this sample of 2,480 5th graders are presented in Table 1. Boys and girls were equally represented in the sample. Whites comprised 43 per cent of the sample, Blacks comprised 19 per cent, and the remaining children were composed of Indians, Latinos, and refugees from several Asian countries, including Vietnam and Cambodia.

Feel Bad Means—The 20 items of the Feel Bad scale, including the mean "badness" rating, the mean frequency rating, and the standard deviation, for each item are presented in Table 2. The dispersion of means of Badness rating (4.09–1.98) was greater than that of the frequency rating means (2.96–1.70). Because of the clustering of means, the rankings are meaningful primarily for those items at either end of the range. The most negatively rated items were, in general, not those that occurred frequently. Two exceptions were feeling sick, which occurred most frequently and was rated fifth in terms of badness, and not spending enough time with mom or dad, which was rated sixth in frequency and fourth in badness. Four of the six items with badness rankings over 3 ("pretty bad") related to interactions with parents.

The distribution of frequency of occurrence responses to various items suggested subjects' ability to use the rating scales provided. For example, 66.8 per cent of the children indicated their parents had never separated, and only 6.5 per cent rated this item as happening often or all the time. With regard to moving, 43.8 per cent had never moved, according to their ratings, another 32.8 per cent moved once or twice, and 4.2 per cent moved "all the time."

Badness Ratings, Frequency of Occurrence, and Demographic Variables—To determine if there was a relationship between frequency of occurrence and ratings of badness, children were grouped into three categories for each Feel Bad item: 1) those who had never experienced the problem; 2) those who experienced it once, twice, or sometimes; and 3) those who experienced it often or all of the time. We were also interested in determining whether sex or race was related to the badness ratings of the Feel Bad items. Thus,

TABLE 1—Population of Study

	White	Black	Other*	Total (%)
Male	561	230	496	1287 (52)
Female	513	230	450	1193 (48)
TOTAL (Per Cent)	1074 (43)	460 (19)	946 (38)	2480

*Indians, Latinos, refugees from several Asian countries, including Vietnam and Cambodia.

the badness ratings of each item were compared by three-way analysis of variance, with frequency (the three groups), sex, and race as the independent variables.

Table 3 summarizes the results of the analysis of variance. Four distinct patterns of association were observed between frequency and badness ratings. There were 10 linear relationships. In these cases, the three means were significantly different from each other, with increased perceptions of badness associated with increased occurrence. For six items, a *threshold* effect was evident. That is, the means of the first two groups were similar, with a significant increase in badness ratings only among those who experienced it often or all the time. For two items, conflict with teachers and parents, there was no significant change related to frequency, or a *flat* pattern of responses. Finally, for the two items rated most distressing, those who had never experienced the event rated it highest, followed by those to whom it had happened often or all the time. In this pattern of *anticipation*, the means of the three groups were significantly different.

For 14 of the items, girls rated the events more bad. Not being good at sports, being smaller, being pressured for grades, not dressing as you want, having nothing to do, and having no money were the only items viewed as equally bad by boys and girls. The mean badness ratings of all 20 items was 3.28 for girls and 2.82 for boys. Although girls and boys differed in the magnitude of their badness ratings, the rank order of the badness ratings for boys and girls was highly correlated ($\rho = 0.96$, $p < .01$).

Eight items showed an effect for racial group. "Other" children were more affected by being smaller and changing schools. White children complained more about being pressured for grades, and Black children more often about feeling sick than the other racial groups. White and Black children rated being pressured to try something new as more stressful than others; Black children and others rated being late for school, fighting over house rules, and feelings of body changing as more stressful than Whites.

The rank order of the badness ratings of the three racial groups compared by Spearman rho coefficients were: White/Black, 0.96; Black/other, 0.98, and White/other 0.98. Similar comparisons for rankings of items by their frequency of occurrence also demonstrated high correlations (from 0.83 to 0.91, $p < .01$ throughout).

Psychometric Properties of the List—Feel Bad - I was not conceived as a measure of a specific psychological construct such as anxiety; however, the internal consistency of the badness ratings was high ($\alpha = 0.82$). A principal components factor analysis with varimax rotation yielded four factors with eigenvalues greater than 1.0. The two, three, and four factor solutions were examined. Both the

TABLE 2—Mean "Badness" Rating and Mean Frequency of Occurrence for 20-Item Feel Bad Scale

Feel Bad Item	Mean Badness*	Standard Deviation	Rank	Mean Frequency‡	Standard Deviation	Rank
1. Having parents separate	4.09	1.27	1	1.82	1.16	19
2. Being pressured to try something new, like a cigarette, that you really don't want to try	3.72	1.36	2	1.70	1.00	20
3. Having your parents argue in front of you	3.56	1.35	3	2.28	1.07	13
4. Not spending enough time with your mom or dad	3.49	1.33	4	2.51	1.23	6
5. Feeling sick	3.37	1.28	5	2.96	.93	1
6. Fighting with your parents about house rules	3.18	1.29	6	2.00	1.06	18
7. Not having homework done on time	3.16	1.29	7	2.50	1.01	7
8. Moving from one place to another	2.95	1.42	8	2.09	1.03	16
9. Not getting along with your teacher	2.90	1.46	9	2.24	1.13	14
10. Being overweight or bigger than others your age	2.89	1.47	10	2.10	1.23	15
11. Changing schools	2.88	1.41	11	2.04	1.10	17
12. Not having enough money to spend	2.82	1.41	12	2.63	1.13	3
13. Not being able to dress the way you want to	2.80	1.34	13	2.45	1.13	9
14. Feeling left out of group	2.77	1.17	14	2.52	1.02	5
15. Having nothing to do	2.65	1.32	15	2.88	1.08	2
16. Pressured to get good grades	2.54	1.31	16	2.58	1.26	4
17. Not being good enough at sports	2.46	1.20	17	2.46	1.11	8
18. Being late for school	2.22	1.19	18	2.31	1.05	11
19. Feeling like your body is changing	2.11	1.18	19	2.37	1.08	10
20. Being smaller than others your age	1.98	1.20	20	2.29	1.23	12

* (1) not bad, (2) a little bad, (3) pretty bad, (4) real bad, (5) terrible.

‡ (1) never, (2) once or twice, (3) sometimes, (4) often, (5) all the time.

scree test (plotting of the eigenvalues) and the conceptual separation of the items suggested that the three factor solution most adequately described the data. Results of the factor analysis are presented in Table 4. The first factor, accounting for 62 per cent of the variance, contained mainly items reflecting the child's relation with parental figures, but from a psychological perspective, this factor might be labeled "sources of anxiety." The second factor, accounting for 23 per cent of the variance, contained items primarily reflecting the child's relationship with peers, but could be viewed as concerned with the child's self-esteem, or labeled "sources of depression." The third factor, accounting for 15 per cent of the variance, contained only two items, both reflecting a change in living arrangements.

Children rated themselves concerning the frequency with which they felt tired, sad, or worried, and the degree to which they liked themselves. Results of a series of two-way analyses of variance to determine if sex and children's self-reports were predictive of Feel Bad scale scores are shown in Table 5. A Feel Bad score was created for each child by multiplying his/her self-weighting of badness times the frequency rating for each item and summing these products. The mean score was 135.1 with a standard deviation of 46.7. Higher scores indicate greater distress. Sex (female) and children's self-ratings were significantly associated with higher scores.

There was no evidence of children rating all items equally, either as to badness or frequency. Of the 2,480

participants, only one child received a score of 20 (minimum) and another scored 500 (maximum).

Main Sources of Psychological Distress—The primary focus of this study was on those conditions or transactions producing psychological distress, as perceived by children. "Feeling sick," unlike the other items, causes both psychological and physical discomfort. Therefore, it was excluded from the process of generating a population score for each item by multiplying its mean ratings of badness and frequency. The five highest scores (in order) were: 1) not spending enough time with parents (8.75); 2) having your parents argue in front of you (8.11); 3) being late with homework (7.90); 4) having nothing to do (7.63); and 5) not having enough money to spend (7.60).

Discussion

The literature on stress in children is limited in both quantity and quality. The few studies that exist of stress in children, without exception, have assessed the frequency of occurrence of certain life events judged by adults to be potentially stressful for children. This approach, widely used with adults, is based upon the reasoning that certain events bring about changes in the lives of individuals, and that adjustment to these changes is stressful.¹⁶ Hypothetically, this stress predisposes the individual to both physical and mental health problems.

While there is evidence that certain life events do

TABLE 3—ANOVA: Badness Ratings by Frequency of Occurrence, Sex and Age

Item	Pattern of Response**	Significant Effects*	
		Sex‡	Race†
1. Left out of group	Linear	F	—
2. Not good at sports	Linear	—	—
3. Changing schools	Threshold	F	Other
4. Being smaller	Linear	—	Other
5. Pressured for grades	Threshold	—	White
6. Late for school	Linear	F	Black and Other
7. Feelings of body changing	Linear	F	Black and Other
8. Feeling sick	Linear	F	Black
9. Not dressing as you want	Linear	—	—
10. Nothing to do	Linear	—	—
11. Not getting along with teacher	Flat	F	—
12. Parents separate	Anticipation	F	—
13. Not enough money	Linear	—	—
14. Being bigger/overweight	Threshold	F	—
15. Pressured to try something new	Anticipation	F	White and Black
16. Moving	Threshold	F	—
17. Parents argue	Threshold	F	—
18. Homework not done	Linear	F	—
19. Fighting over house rules	Flat	F	Black and Other
20. Not enough time with parents	Threshold	F	—

* $p < 0.01$.

**See text for explanation.

‡Indicates group that rated it "more bad."

increase the probability of reporting physical symptoms,¹⁷ the strength of the association between life events and actual change in physical health status is still being debated.¹⁸⁻¹⁹ There appears to be a relationship between life events and mental health problems,²⁰ specifically symptoms of depression; however, life events rarely account for more than 10 per cent of the variance in mental health status (correlations of less than 0.30). Thus, certain life events may be contributing to distress, but they are certainly not the only source of it.

Recently, researchers have begun to look for variables that might moderate, or attenuate, the impact of life events on health. Moderating variables that have been investigated include dispositional characteristics, such as locus of control,^{21,22} interpersonal characteristics such as social support,²³ and situational characteristics such as persistent role problems.²⁴ Because of the relevance of persistent role problems for our research, these will be discussed in greater detail.

In a study of the social sources of emotional distress, Pearlin and Lieberman distinguish persistent role problems, a form of life strain, from discrete life events.²⁴ They describe role problems as being chronic, having no discrete onset in time, and being low-keyed frustrations and hardships with which people must contend. Based upon data gathered from 2,300 Chicago-area adults, they concluded that discreet life events do not act directly upon mental states, but are channeled through these more persistent problems (e.g., inadequate job rewards, non-fulfillment of marital expectations). Their data showed that when the effect of persistent role problems on psychological distress is statistically controlled, the association between discrete events and distress is diminished. A study by Gersten and colleagues²⁵ examined longitudinal data from a survey of

732 mothers of children. They found that after controlling for ongoing stressful processes, which were analogous to role problems, there was a substantial reduction in the relation between life events and children's behavior problems. Examples of ongoing (continuing) stressful processes included quarreling and unhappy parents and impoverished economic status.

Although five or six of the items children said made them feel bad represent the type of discrete event that would appear on a life events checklist, the majority of items, especially those with higher population scores, were more similar to the persistent role problems and ongoing stressful processes described by Pearlin, *et al.*²⁴ and Gersten, *et al.*²⁵

Since these items were generated by children, the data suggest the principal sources of children's distress are more often problems of an enduring nature, which have no specific onset in time. The life events approach may not be the most appropriate way to study distress in children. One problem raised by including both discrete events and ongoing problems in the same scale format, however, is that the frequency dimension makes less sense for some discrete events (e.g., parents separating). We felt that a uniform format would be easiest for the children; a second version of the scale might benefit from separating the discrete events and ongoing strains.

In our data, there was generally a positive relationship between frequency of occurrence and intensity of badness ratings. For the two items rated most "bad," however, an interesting pattern emerged. Those children who had never been pressured to try something new, or whose parents had never separated, rated these occurrences as worse than did children actually experiencing the event. Thus, it appears that for intensely negative experiences, the anticipation of the event actually is worse than the event. This finding is

TABLE 4—Factor Structure of the Feel Bad Scale

Item	Factor		
	I	II	III
Parents arguing	.63*	.09	.18
Not spending enough time with mom/dad	.61	.18	.08
Parents separate	.56	.01	.25
Fight with parents over house rules	.54	.24	.01
Pressured to try something new	.52	.19	.09
Homework not done on time	.42	.39	.08
Feeling sick	.31	.29	.22
Not good at sports	.16	.46	.01
Not enough money	.09	.42	.17
Not able to dress the way you want	.17	.40	.16
Nothing to do	.12	.39	.16
Being late for school	.19	.38	.03
Being smaller	0	.36	.06
Being bigger/overweight	.22	.36	.05
Not getting along with teacher	.36	.36	.05
Left out of group	.23	.33	.04
Moving	.14	.16	.63
Changing schools	.14	.19	.52

*Items loading 0.30 or greater on a factor are underscored.

consistent with the research of Kasl, Gore, and Cobb²⁶ on job loss. These authors found more severe stress reactions in men who were about to lose their jobs due to the closing of their factory than in these same men immediately following job loss. Similarly, laboratory studies of impending stress (e.g., electric shock) show that the anticipation of pain can produce the same physiologic response as the pain itself.²⁷

The data also suggest that there are strains in childhood that may not be appreciated as such by adults (e.g., having nothing to do, not spending enough time with parents). Some of these are experienced relatively frequently. Although girls rate the items as worse overall than boys, the sexes concur in the rank order of badness ratings. Similar sex differences have been noted in adults' ratings of the severity of life events.²⁸ The frequent experience of these strains seems to be associated with mental distress, as shown by the positive relationships between Feel Bad scores and children's self-ratings of psychological state. While it might appear that the relationships between the Feel Bad scores and the mental health ratings are to be expected, we believe that the children's mental health ratings provide some convergent validation for this approach. The total Feel Bad score is a composite of frequency and intensity ratings for all items. Although children experienced these items with varying frequency, and also varied in the "badness" that they attributed to an item, there was a linear ordering of the mean distress score for the three response categories (never, some, a lot) of the self-reports on the mental health items. Still to be determined, however, are the consequences of these strains, in terms of behavior, outlook, and long-term mental health.

This initial effort in the development of a measure of psychological distress in children has many limitations. The

items were developed using a White middle-class group of children, age 10–11. Given the changes in social environment with age, it should be emphasized that the data presented are from 5th graders. Other items/problems and priority shifts in those listed should be expected in older children. There were significant racial differences in ratings of items by their frequency of occurrence and distressfulness. There undoubtedly are ethnic-specific sources of role strain that are not represented among the 20 items used to date. Children from disadvantaged families should, independent of ethnicity, have other sources of concern.**

Although we felt it was advantageous to generate the items by talking to children, this methodology is less than robust, i.e., the universe of items is not defined.

There also is the question of what is being measured, i.e., what does feeling "bad" mean to children? Additional expressions such as worried and nervous were used in the instructions, because there is nothing in the literature to assist in the operational definition and differentiation of mild anxiety and mild depression in pre-adolescent children.

The existence in adults of subclinical or mild states of anxiety or depression is well recognized. Considerable effort is made in primary care training programs to prepare practitioners to detect and treat patients with a variety of ill-defined complaints, who suffer from mild to moderate depression or anxiety. While there is no lack of concern for children with severe forms of pediatric behavior disorders, little emphasis has been placed on the definition and understanding of less severe mental health problems of children.

As indicated, the relation among role strains, life

**Work presently underway to develop further items confirms this hypothesis.

TABLE 5—ANOVA—Feel Bad Scores and Child Self-Ratings

Rating	Feel Bad Score	F	P
Sad		57.3	<.0001
a lot	161.9		
sometime	137.7		
never	123.1		
Like Yourself		49.1	<.0001
a lot	129.2		
sometime	143.9		
never	163.1		
Worry		42.9	<.0001
a lot	156.1		
sometime	135.1		
never	127.1		
Tired		27.7	<.0001
a lot	151.3		
sometime	135.6		
never	126.6		

events, personality, social support systems, and mental health is poorly understood in adults. Among children, many of these constructs have yet to be defined, let alone described.

Although our primary interest is to identify sources of distress among a non-clinical population, it would be worthwhile to determine the strength of the association between Feel Bad scores and those few inventories designed to measure depression or anxiety in children. We are initiating observational studies of children who have completed the "Feel Bad" instrument. Independent ratings/observations by teachers and school nurses on academic performance, classroom behavior, and illness behavior should provide measures of discriminant and predictive validity.

Our current studies should provide more insight into the sources of distress for children and adolescents. However, they will only beg further questions about the main issue, yet to be addressed—that is, an operational definition of children's emotional and social health which incorporates the child's perspective.

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